

EXHIBIT 17

**UNREDACTED VERSION
OF DOCUMENT
SOUGHT TO BE SEALED**

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

WAYMO LLC,)
Plaintiff,)
vs.) Case No.
UBER TECHNOLOGIES, INC.;) 3:17-cv-00939 WHA
OTTOMOTTO LLC; OTTO)
TRUCKING LLC,)
Defendants.)

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

VIDEOTAPED DEPOSITION OF [REDACTED]

San Jose, CA

Wednesday, August 23, 2017

Volume I

Reported by:

SUSAN F. MAGEE, RPR, CCRR, CLR

CSR No. 11661

JOB No. 2686098

PAGES 1-154

1 alignment for the [REDACTED] and [REDACTED].

2 BY MR. MUINO:

3 Q. MPI refers to manufacturing process
4 instructions?

5 A. That is correct.

6 Q. Is that an abbreviation that you --
7 [REDACTED] uses in some of its documents?

8 A. That is correct.

9 Q. What does the laser -- it says "laser fiber
10 attach."

11 What does that refer to?

12 A. [REDACTED] uses a fiber, which is placed in
13 front of the laser diode as a fast axis collimator.

14 Q. Is that fiber cylindrical in shape?

15 A. Yes.

16 Q. And you said it uses this fiber as a fast
17 axis collimator.

18 Is that sometimes abbreviated FAC?

19 A. That is correct.

20 Q. What is a fast axis collimator?

21 A. Fast axis collimator is used to collimate
22 the output rays typically with a -- typically with a
23 system in which the angular extent on one axis is
24 larger than the other.

25 Q. And when you refer to -- well, you said the

1 rays are -- the angular extent is larger on one axis
2 than the other.

3 Can you explain what you mean?

4 A. So we use a fast axis collimator to -- to
5 in essence compress the outgoing angular extent of
6 the viewable angle of a system.

7 Q. The laser diodes that [REDACTED] uses, what
8 kind of laser diodes does [REDACTED] use, do you know?
9 Do you get it from a particular vendor?

10 A. We do.

11 Q. Do you know which vendor?

12 MR. PICONE: You can go ahead.

13 THE WITNESS: [REDACTED].

14 BY MR. MUINO:

15 Q. And the rays from that -- emitting from
16 those laser diodes, do they tend to diverge faster
17 in one direction than the other?

18 A. They do.

19 Q. The direction that they diverge faster is
20 called the fast axis?

21 A. Yes.

22 Q. The fast axis collimator that [REDACTED] puts
23 into the [REDACTED] and [REDACTED], is that the kind to
24 collimate the light in the fast axis direction?

25 A. It reduces -- it reduces the angular extent

1 of the light coming out from that direction.

2 Q. And I think you mentioned previously that
3 the transmit lens of the system also has the
4 function of collimating the beams?

5 A. That is correct.

6 Q. So the -- this -- the fast axis collimator
7 that [REDACTED] uses is kind of precollimating that
8 light or a first stage of collimation?

9 A. Correct.

10 Q. Now, this particular document applies to
11 the [REDACTED] and the [REDACTED]; correct?

12 A. Correct.

13 Q. Do [REDACTED] other LiDARs also use a fast
14 axis collimator in front of their laser diodes?

15 A. They do.

16 Q. Does each laser diode in [REDACTED] LiDARs
17 have its own fast axis collimator?

18 A. Yes.

19 Q. The date on the front of this document is
20 April 5th, 2017.

21 Do you see that?

22 A. I do.

23 Q. Has [REDACTED] always used fast axis
24 collimators for its laser diodes in its LiDARs?

25 A. To the -- to the best of my knowledge, yes.

1 Q. So going back to 2007 release, for example,
2 of the [REDACTED], that LiDAR also had fast axis
3 collimators in front of its laser diodes?

4 A. Correct.

5 Q. If we go to -- just quickly go through this
6 document.

7 If we go to page 2, generally, what is
8 that? What is page 2 showing?

9 A. Page 2 is showing the complete setup, the
10 station setup that's used to attach the fiber to the
11 [REDACTED] laser boards.

12 Q. And if we go to page 8, please.

13 First of all, on the left side Figure 1,
14 what does Figure 1 show?

15 A. Figure 1 shows the clamping method that we
16 have for holding the fiber down for the fiber attach
17 process.

18 Q. That fiber that we see there, that's the
19 fast axis collimator?

20 A. That is correct.

21 Q. Then if you go to page 10, please.

22 And do you see on the right side there
23 appears to be a board, and then there's the fiber in
24 front of it?

25 A. Yes.

1 A. Correct.

2 Q. And we see that it's situated there in
3 front of the laser diode; correct?

4 A. Correct.

5 Q. And I believe you -- you mentioned before,
6 but just to be clear, all of [REDACTED] LiDARs use
7 fast axis collimators in front of the individual
8 laser diodes?

9 A. To the best of my knowledge, yes.

10 MR. MUINO: All right. Why don't we take a
11 break.

12 THE VIDEOGRAPHER: Off the record? We're
13 now going off the record. The time is 9:59 a.m.

14 (Recess taken from 9:59 a.m. to 10:13 a.m.)

15 THE VIDEOGRAPHER: We are now back on the
16 record. The time is 10:13 a.m.

17 BY MR. MUINO:

18 Q. I have just a few more questions about the
19 fast axis collimators that we were discussing.

20 You mentioned that the fast axis
21 collimators are used to collimate the laser light
22 coming out of the diodes; correct?

23 A. They are used to slow down the fast axis of
24 the diodes.

25 Q. Can you explain what you mean by that.

1 A. They help converge the light coming out of
2 the diodes.

3 Q. And that's referred to as collimation?

4 A. Yes.

5 Q. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

10 Q. And how does that work?

11 A. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

20 A. Yes.

21 Q. What are those? What are those
22 circumstances?

23 A. [REDACTED]

[REDACTED]

[REDACTED]

1

■

3

Q. So in those situations, it's desirable to

4

■

6

A. Correct.

7

8

9

Q. Is that kind of done on an ad hoc basis or
is that a relatively common practice in setting up
the FACs?

10

11

12

A. So it is product-dependent. It's a common
practice done on the ■ and not so much done on
the ■.

13

14

Q. And again, the ■ is the one that's
been selling since 2007; correct?

15

A. That is correct.

16

17

18

Q. ■
using the FACs in the ■, has that been done
since it was first sold?

19

A. To the best of my knowledge, yes.

20

21

Q. Outside of ■, are you aware of other
laser systems that use FAC lenses?

22

A. No, I'm not aware.

23

Q. Are you aware of vendors that sell FACs?

24

A. In general, yes.

25

Q. Any particular ones that you can think of?

1 A. I believe [REDACTED] sells fast axis
2 collimators.

3 Q. Does [REDACTED] purchase its fast axis
4 collimator fibers from a vendor?

5 A. It does.

6 Q. Which vendor?

7 A. I do not know off the top of my head right
8 now.

9 MR. MUINO: I think we're up to 1964. I'm
10 going to mark as 1964 another document that was
11 produced, I believe, in native format by [REDACTED].

12 (Exhibit 1964, [REDACTED] and [REDACTED] Laser or
13 Emitter Board Outline (4 pages), marked for
14 identification.)

15 MR. PICONE: Similar to the previous
16 exhibits, this should be marked attorneys' eyes
17 only.

18 BY MR. MUINO:

19 Q. Do you recognize this document?

20 A. I do.

21 Q. What is this document?

22 A. This document appears to show the top layer
23 and board outline of the [REDACTED] and [REDACTED] laser or
24 emitter board.

25 Q. If we look at the last page of this

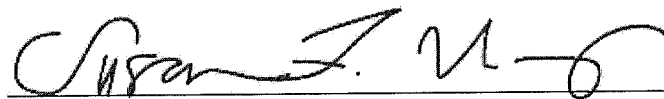
1 I, the undersigned, a Certified Shorthand
2 Reporter of the State of California, do hereby
3 certify: That the foregoing proceedings were taken
4 before me at the time and place herein set forth;
5 that any witnesses in the foregoing proceedings,
6 prior to testifying, were administered an oath; that
7 a record of the proceedings was made by me using
8 machine shorthand which was thereafter transcribed
9 under my direction; that the foregoing transcript is
10 a true record of the testimony given.

11 Further, that if the foregoing pertains to
12 the original transcript of a deposition in a Federal
13 Case, before completion of the proceedings, review
14 of the transcript [] was [X] was not requested.

15 I further certify I am neither financially
16 interested in the action nor a relative or employee
17 of any attorney or any party to this action.

18 IN WITNESS WHEREOF, I have this date
19 subscribed my name.

20 Dated: August 24, 2017

21
22 
23

24 Susan F. Magee, RPR, CCRR, CLR

25 CSR No. 11661